

## BMP-31

### BMP: TEMPORARY SEEDING

#### Definition

The establishment of a temporary vegetative cover on disturbed areas by seeding with appropriate rapidly growing annual plants.

#### Purposes

1. To reduce erosion and sedimentation by stabilizing disturbed areas that will not be brought to final grade for a period of more than 30 days.
2. To reduce damage from sediment and runoff to downstream or off-site areas, and to provide protection to bare soils exposed during construction until permanent vegetation or other erosion control measures can be established.

#### Conditions Where Practice Applies

Where exposed soil surfaces are not to be fine-graded for periods longer than 30 days. Such areas include denuded areas, soil stockpiles, dikes, dams, sides of sediment basins, temporary roadbanks, etc. A permanent vegetative cover shall be applied to areas that will be left dormant for a period of more than 1 year.

#### Planning Considerations

Sheet erosion, caused by the impact of rain on bare soil, is the source of most fine particles in sediment. To reduce this sediment load in runoff, the soil surface itself should be protected. The most efficient and economical means of controlling sheet and rill erosion is to establish vegetative cover. Annual plants which sprout rapidly and survive for only one growing season are suitable for establishing temporary vegetative cover. Temporary seeding is encouraged whenever possible to aid in "controlling" construction sites.

Temporary seeding also prevents costly maintenance operations on other erosion control systems. For example, sediment basin clean-outs will be reduced if the drainage area of the basin is seeded where grading and construction are not taking place. Perimeter dikes will be more effective if not choked with sediment.

Temporary seeding is essential to preserve the integrity of earthen structures used to control sediment, such as dikes, diversions, and the banks and dams of sediment basins.

Proper seedbed preparation and the use of quality seed are important in this practice just as in permanent seeding. Failure to carefully follow sound agronomic recommendations will often result in an inadequate stand of vegetation that provides little or no erosion control.

### Specifications

Prior to seeding, install necessary erosion control practices such as dikes, waterways, and basins.

#### Plant Selection -

Select plants appropriate to the season and site conditions from Tables 31-2 and 31-3. Note that Table 31-2 presents plants which can be used without extensive evaluation of site conditions; Table 31-3 presents more in-depth information on the plant materials.

#### Seedbed Preparation -

To control erosion on bare soil surfaces, plants must be able to germinate and grow. Seedbed preparation is essential.

1. An evaluation should be conducted to determine if lime is necessary for temporary seeding. In most soils, it takes up to 6 months for a pH adjustment to occur following the application of lime. Therefore, it may be difficult to justify the cost of liming a temporary site, especially when the soil will later be moved and regraded. The following table may be used to determine the actual need along with suggested application rates.
2. Fertilizer: Shall be applied as 670 kilograms per hectare (600 lbs/acre) of 10-20-10 (70 kilograms per 1,000 square meters (14 lbs/1,000 square feet) or equivalent nutrients. Lime and fertilizer shall be incorporated into the top 50 to 100 millimeters (2 to 4 inches) of the soil if possible.
3. Surface Roughening: If the area has been recently loosened or disturbed, no further roughening is required. When the area is compacted, crusted, or hardened, the soil surface shall be loosened by discing, raking, harrowing, or other acceptable means (see SURFACE ROUGHENING, BMP-29).

**TABLE 31-1**  
**LIMING REQUIREMENTS FOR TEMPORARY SITES**

<u>pH Test</u>	<u>Recommended Application of Agricultural Limestone</u>
below 4.2	6,725 kilograms per hectare (3 tons per acre)
4.2 to 5.2	4,480 kilograms per hectare (2 tons per acre)
5.2 to 6	2,240 kilograms per hectare (1 ton per acre)

4. Tracking: Tracking with bulldozer cleats is most effective on sandy soils. This practice often causes undue compaction of the soil surface, especially in clayey soils, and does not aid plant growth as effectively as other methods of surface roughening.

**Seeding -**

Seed shall be evenly applied with a broadcast seeder, drill, cultipacker seeder or hydroseeder. Small grains shall be planted no more than 40 millimeters (1.5 inches) deep. Small seeds, such as Kentucky Bluegrass, should be planted no more than 6 millimeters (0.25) inches deep. Other Grasses and Legumes should be planted from 6 millimeters to 12 millimeters (0.25 inch to 0.5 inches) deep.

**Mulching -**

1. Seedings made in fall for winter cover and during hot and dry summer months shall be mulched according to MULCHING, BMP-35, except that hydromulches (fiber mulch) will not be considered adequate. Straw mulch should be used during these periods.
2. Temporary seedings made under favorable soil and site conditions during optimum spring and fall seeding dates may not require mulch.

**Re-seeding -**

Areas which fail to establish vegetative cover adequate to prevent rill erosion will be reseeded as soon as such areas are identified.

**TABLE 31-2**  
**ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS**  
**"QUICK REFERENCE FOR ALL REGIONS"**

Planting Dates	Species	Rate grams/sq. meter (lbs./acre)
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass ( <i>Lolium multi- florum</i> ) & Cereal (Winter) Rye ( <i>Secale cereale</i> )	6 - 11 (50-100)
Feb. 16 - Apr. 30	Annual Ryegrass ( <i>Lolium multi-florum</i> )	7 - 11 (60 -100)
May 1 - Aug. 31	German Millet ( <i>Setaria italica</i> )	6 (50)

**TABLE 31-3**  
**TEMPORARY SEEDING PLANT MATERIALS, SEEDING RATES, AND DATES**  
**FOR MID-ATLANTIC STATES**

SPECIES	SEEDING RATE		NORTH			SOUTH			PLANT CHARACTERISTICS
	Acre	1000 ft <sup>2</sup>	3/1 to 4/30	5/1 to 8/15	8/15 to 11/1	3/1 to 4/30	5/1 to 8/15	8/15 to 11/1	
OATS ( <i>Avena sativa</i> )	3 bu. (up to 100 lbs., not less than 50 lbs.)	2 lbs.	X	-	-	X	-	-	Use spring varieties (e.g., Noble).
RYE ( <i>Secale cereale</i> )	2 bu. (up to 110 lbs., not less than 50 lbs.)	2.5 lbs.	X	-	X	X	-	X	Use for late fall seedings, winter cover. Tolerates cold and low moisture
GERMAN MILLET ( <i>Setaria italica</i> )	50 lbs.	approx. 1 lb.	-	X	-	-	X	-	Warm-season annual. Dies at first frost. May be added to summer mixes.
ANNUAL RYEGRASS ( <i>Lolium multi-florum</i> )	60 lbs.	1½ lbs.	X	-	X	X	-	X	May be added in mixes. Will mow out of most stands.
WEeping LOVEGRASS ( <i>Eragrostis curvula</i> )	15 lbs.	5½ ozs.	-	X	-	-	X	-	Warm-season perennial. May bunch. Tolerates hot, dry slopes and acid, infertile soils. May be added to mixes.
KOREAN LESPEDEZA ( <i>Lespedeza stipulacea</i> )	25 lbs.	approx. 1½ lbs.	X	X	-	X	X	-	Warm season annual legume. Tolerates acid soils. May be added to mixes.